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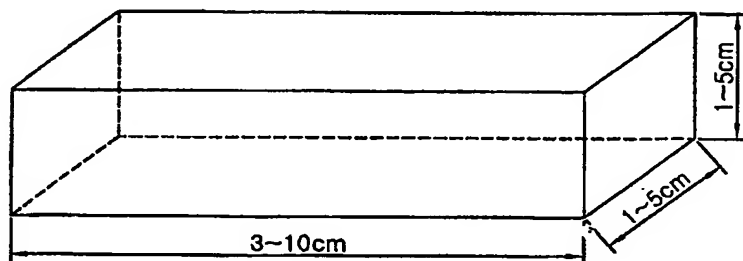
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(54) Title: UNIT BLOCK USED IN MANUFACTURING CORE WITH SOFT MAGNETIC METAL POWDER, AND METHOD FOR MANUFACTURING CORE WITH HIGH CURRENT DC BIAS CHARACTERISTICS USING THE UNIT BLOCK



(57) Abstract: A unit block for a core using soft magnetic metal powder, a core having excellent high-current DC bias characteristics using the unit block, and a method of producing the core are disclosed. The unit block is used to produce cores applied to an active filter for PFC, a three-phase line reactor, or an inductor for automotive electronics. A method of producing the core comprises mixing sendust alloy, High Flux, MPP, or silicon steel powders, which have an average particle size of 175 μm or less, with a solid

lubricant; compacting a mixture at a pressure of 10 - 18 tons per unit area; heat-treating the compacted mixture at 600 - 800°C for 1 - 2 hours to form the unit blocks each having a length of 3 - 10 cm, a width of 1 - 5 cm, and a height of 1 - 5 cm; and attaching the unit blocks using a heat- and fire-resistant adhesive.